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Aspects of Interest to the Modern Veterinary Practitioner*

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So as to create a good discussion, eight different topics have been selected, four from the domain of medicine, and the others of a surgical nature. In this way I hope to tap the interest of every member here, and while possibly giving a little information to some, I hope to harvest a good deal from all in the ensuing discussion.

This paper was intended for August, but owing to an upset in other arrangements, I was asked to prepare it at very short notice. For that reason, I ask you to overlook the complete absence of detailed statistics and references, and to regard this paper as a record of my observations on a few conditions which I consider topical.

The first condition to which I wish to refer is one which I meet some 30 times each year. The disease in question occurs in bovines during the late spring, summer and autumn. I have never seen more than one case of it on a farm at once, but have met as many as three cases on adjoining farms at the same time.

It appears to have acute, sub-acute and chronic forms :—

The symptoms of the acute form are—Fever, elevation of temperature (105°-107° F.), want of appetite, marked palpitation of the heart, depression, and acute inflammation of the nasal mucous membrane. The congestion of the nasal mucous membrane sometimes causes dyspnoea. The animal may or may not have a cough ; salivation is noted in a small percentage of cases. The colour of the muzzle changes to brown (except in black cattle), as does also the hairless skin about the eye, and the perineum. The latter often develops a glistening appearance. The skin of the udder and teats and the roots of the horns and hooves feel very hot. The animal is often restless, switches the tail, and, in the case of cows, resents being milked. Sequels to this type of the disease may be pneumonia and abortion.

In the sub-acute form the temperature is only slightly elevated (about 104° F.), the animal has a poor appetite, a sero-fibrinous or purulent exudate forms on the nasal mucous membrane, and a globule of pus will be found at the nasal canthus of each eye. The skin around the muzzle, eyes, and perineum becomes a dark brown, and that of the perineum becomes wrinkled. The skin of the teats also becomes wrinkled and frequently covered with a number of elliptical dark-brown areas, about 2 inches long by 1 inch wide. These areas are parchment like and painful to the touch. If the animal is on pasture it will usually be found away from the other cattle.

In the chronic form there is emaciation, weakness and sometimes ulceration of the nasal mucous membrane. The brown patches on the teats become denuded of skin and have the appearance of red raw sores. Sometimes areas of skin on the udder, and on the inside of the thighs, fall off, and occasionally other areas of the body are similarly affected, particularly on the upper portion of the chest wall and back. The muzzle becomes covered by a rough brown crust, somewhat like a crust formed by bran. The eye has still its globule of pus at the nasal canthus, and the hair of the cheek is matted with discharge.

This disease in its different stages could possibly be confused with (1) foot-and-mouth disease ; (2) tuberculosis (due to the extreme wasting and the cough) ; (3) cow pox (due to the teat lesions) ; and (4) coital exanthema (due to the inflammation of the perineum, accompanied by switching of the tail).

It could also be confused with "rinderpest," and with "septicaemia haemorrhagica" in countries where these diseases are indigenous.

I call this disease "malignant catarrh." In classical descriptions of this disease the hooves and horns are frequently supposed to fall off, but I have never seen this occur. Neither have I seen gastro-enteritis, ulceration of the cornea, convulsions, or coma, as sequelae.

The mortality for malignant catarrh, according to the textbooks, is from 50 to 90 per cent., but in the disease I have encountered the majority of the cases recover when treated.

Treatment.—½ lb. of yeast, twice daily for four days, together with symptomatic treatment, has been found most successful.

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PINING AND SCOURING IN CATTLE

As a routine measure in all cases of wasting or scour in bovines, where an obvious cause (such as tuberculosis or acute coccidiosis) cannot be found, a microscopical examination of the faeces is carried out. When consulted about a bovine suffering from scouring or wasting, such an examination of the faeces is insisted on, before expressing any opinion as to cause, or before prescribing for the animal, except in cases where the diagnosis is obvious. For example, a diagnosis of fluke or parasitic gastritis is not made, even though the animal or animals have been clinically examined. Experience has proved that this additional trouble is well worth while. Even though it may often be possible on clinical examination to say "that is fluke" or "this is parasitic gastritis," when the diagnosis is checked by microscopical examination it is surprising how many times a wrong diagnosis could have been made. Clinical examination of the faeces is more beneficial than examination of the animal itself. When the faeces have a foul odour, it is more likely to be a case of parasitic gastritis. Even in good high pastures, and in cows, a surprise often awaits one, in that a very heavy infestation of fluke is often found to be the cause of wasting, without any evidence of scour being present.

During the past eleven months I have kept a record of microscopical examinations of bovine faeces, from those cases about which I have been consulted. During that period 615 samples were examined. This might give the impression that it was almost a whole-time job, but actually very little time and equipment is required to carry out such work, and there is no necessity to do elaborate egg counts for routine diagnosis. All the equipment required is a microscope with low and middle power lenses, some slides, a glass funnel, a little gauze strainer, a rack, and about six test tubes. The method used is simple, and no special solutions are necessary. A few grammes of faeces are taken and diluted with ordinary tap water, to the consistence of thin soup. The mixture is then strained through the gauze strainer and then through a funnel into a test tube, and allowed to stand for half an hour. The supernatant fluid is poured off and the smear made from the deposit is examined with the low power lens. The middle power is only required to confirm the presence of coccidia. I feel sure that some listeners will be horrified by this crude method of preparation, but nevertheless the results obtained are good enough for ordinary routine work. There are various solutions used in the laboratory and in practice for getting a better picture of the degree of infestation present, but with experience the above simple method is quite efficient. It is more so because the practitioner has usually seen the animal and often only wants a differential diagnosis. I frequently use sugar solution or salt solution, but doubt if the extra time and trouble is justified by much better results. It is better to use a simple and quick method than to get tired of a job and probably leave it undone. When the slide is examined the number of ova of either fluke or strongyles are counted, and the results noted as, say, 40F for fluke or 20S for strongyles, or it may be that both are present in the same sample. By this method, when the number of fluke ova exceeds ten, and/or the number of worm ova exceeds six and the clinical symptoms are borne in mind, it is safe to diagnose fluke or parasitic gastritis as the cause of the wasting and scour. I have proved this method most useful by treating the animal for the condition thus diagnosed, and checking up results by the clinical improvement of the animal, also by subsequent examination of the faeces. The result most likely to suffer by this rough-and-ready method is the strongyle egg count, owing to the lightness of these species of ova. That is why even the presence of a small number of ova is taken as evidence of infestation.

The results obtained from the examination of 615 samples are as follows : 297, or 48·2 per cent., contained fluke ; 203, or 33·4 per cent., contained strongyle eggs ; 79, or 12·8 per cent., contained both ; 27, or 4·3 per cent., contained coccidia ; and 88, or 14·2 per cent., were negative.

In considering these figures it must be remembered that they were taken from animals clinically affected either with scour or wasting or both, and also that samples were not examined from animals showing clinical symptoms of acute coccidiosis.

A few words about the drugs which are now used against these conditions in the bovine may not be out of place here.

Treatment of Liver Fluke Disease.—As it is impossible to obtain male fern at an economical price, I am now using carbon tetrachloride. The dosage is for a yearling, 4 c.c. ; two-year-old, 6 c.c. ; three-

year-old or over, 8 c.c. I find this drug not by any means as efficient as male fern, and much more toxic. It is, however, no use in small doses. There is a good deal of individual susceptibility, as regards both its medicinal effects and its toxic effect. Withholding all roots and concentrates for two days before dosing, and a day afterwards, is an advantage. The dose should be repeated in a fortnight. A sample of faeces should again be examined a fortnight after the second dose has been given, and treatment repeated if necessary.

Treatment of Strongyles.—Phenothiazine is very efficient. The doses are: yearling, 1 oz.; two-year-old, 1½ ozs. Toxic symptoms are rarely encountered except where profound anaemia exists, and in these cases the dose is fatal. Such animals, however, would die in any case.

Treatment of Coccidiosis.—When a number of coccidia are noted in a sample, the animal is treated as for acute coccidiosis, with good results. Treatment used, and found efficient, is a dose of castor oil, followed by a 12-hour fast, and then astringents such as cupri sulph., ferri sulph. and catechu are given. Drinks, mashes and grass only are allowed for some days, hay and crushed oats being contra-indicated. The animal is housed, the bedding changed frequently, and plenty of milk allowed.

On the coastal areas of my district, especially where the soil is of a sandy nature, a number of cases of pining are encountered each year during the late summer and autumn. These cases are principally in adult cattle, and the only peculiar symptom these animals display is a tendency to graze off the fences rather than eat the grass on the pasture. The milk supply is also diminished. Having read an article in *The Veterinary Record*, April 30th, 1938, referring to the relationship between pining and the trace elements, I have treated these cases, in the intervening years, with cupri sulph., ferri. sulph. and cobalt nitrate. The results have been very good.

The Treatment of Piroplasmosis with Phenamidine Isethionate

Since the disappearance of "acapron" from the market, I found that equal results could not be obtained with any other product until about 18 months ago, when M & B 736, or phenamidine isethionate, appeared. In fact, with one of the other products the results were so disastrous in a few cases that its use was discontinued.

This drug was first prepared for veterinary use as a dilute solution of phenamidine di-hydrochloride, and the dose recommended for trial purposes was 1 grm. This dose was found ineffective. Later a dose of 2 grms. was tried, and this was found most effective. In fact, I can say that every animal on which I have so far used it has recovered. There are no toxic effects, and only in one case was there a local reaction. In this case it is most unlikely to have been caused by the drug.

This drug is now being produced in a more soluble form, as phenamidine isethionate, and the dose recommended is 3 grms, which is equivalent to 2 grms of the less soluble di-hydrochloride.

The following are a few details of two fairly typical cases:—

(1) Four-year-old Black Kerry cow. Temperature, 104° F. Urine was heavy red; faeces were normal in consistence, but the animal was straining slightly. Heart sounds could be heard over the loins. This animal had probably been suffering from the condition about three days.

Treatment.—Given four ampoules of the dilute solution, which is equivalent to 3 grms. of the isethionate.

Result.—This cow was perfectly normal when seen 24 hours later.

(2) Black seven-year-old crossbred Shorthorn cow. Temperature, 102° F. Urine dark red; faeces fluid and animal straining. Heart beats distinct over loins. Grinding teeth.

Treatment.—This cow was given 3 grms of isethionate, as well as sodium chloride ½ lb. in a gallon of water by stomach tube. Later, powders containing sod. bicarb., ammon. carb. and digitalis three times a day were prescribed.

Result.—When seen 24 hours later the urine was clear, the faeces still somewhat liquid, appetite poor, and still grinding teeth a little. No further treatment was given, and recovery was complete in another 24 hours. Seventeen other cases have been treated with similar results, and this drug seems to be well worth a more extended trial.

Sodium Iodide Intravenously in the Treatment of Actinomycosis

When this method of treating actinomycosis and actinobacillosis came into vogue I used it, not alone for these conditions, but also for ringworm in cattle, for which it was also reported to be a specific.

Undoubtedly where the desired effect is obtained it has many advantages over the prolonged use of pot. iodide, but though some cases responded very well to it there were many on which it seemed to have little or no effect. On ringworm cases it seemed to have no effect at all.

Some of the failures are as follows:—

(1) A three-year-old Shorthorn premium bull. This animal had a lesion over the horizontal border of the ramus. It was about the size of a goose egg when first treated. He received, in all, three 1-oz. doses, and three doses of 1½ oz., over a period of four months. Iodine was injected into the lesion at each visit. In addition, the area was painted with iodine daily for a month, and afterwards a biniodide blister was applied. After four months the lesion was 10 inches long by 4 inches wide, and had two areas of granulation tissue. The bull was subsequently slaughtered.

(2) Black Shorthorn four-year-old store cow, affected in the free portion of the tongue. She was given four injections of 1 oz., each at intervals of ten days. The lesion seemed to improve for a few days after each injection, but then got worse again. The skin was now scaly and there was a discharge from both eyes. Treatment was discontinued, and two weeks later potassium iodide medication was commenced, using drachm doses daily. Three oz. of this drug effected a complete cure.

(3) An A.A. bullock, two years old. Lesion at posterior of the tongue. This animal had been getting a drench supplied by a chemist, and the owner thought the animal was cured. When salivation commenced again the animal was presented to me for treatment. Treatment with sodium iodide, 1 oz., was given twice with an interval of 14 days, but no improvement was noticed. It eventually took 4 oz. of potassium iodide to effect a complete cure.

Mr. Nagle, of Killarney, has told me that, with the owner's consent, he has used a dose of 4½ oz. sodium iodide intravenously on a cow suffering with actinobacillosis. The animal staggered for about ten minutes after the injection was completed; although she recovered from the immediate effects no beneficial results were obtained from the treatment.

Now to pass on to some conditions of a surgical nature.

Remarks on Hudson's Operation for Stricture of the Teat

This is a very useful operation, provided it is performed on the correct type of case, and at the proper time. Of the suitable cases presented for operation, about 90 per cent. are cows which have had their second calf. Most of the other 10 per cent. are cows that have had their third calf, and it will be found that most of these should have been operated on after their second calving. Why is it that the condition occurs in cows after the second calf? The history of these cases is invariably as follows: At some time during the first lactation period it was noticed that a little blood came with the milk from one or more quarters, for a period of about a week, and that the animal resented milking the particular quarter or quarters affected. After the blood had cleared up the teat appeared normal in some cases, while in others it was difficult to drain the quarters fully. When these animals calved a second time the teat or teats concerned were found obstructed, somewhere between the galactophorous sinus and half an inch above the tip of the teat. Sometimes the obstruction is not complete, in which case a little milk percolates through, so that a small quantity can be drawn off the duct every time one goes to it, but a continuous flow cannot be obtained. The obstruction can be palpated as a membrane of varying thickness across the duct. The feeling of this membrane is suggestive of a haw in the teat. Sometimes it is a long thickening and is described as a string.

My explanation of these obstructions is that the lining epithelium in the cow at her first lactation ruptures (the period when blood was seen in the milk). When the animal dries off, the walls of the teat duct more or less collapse, and the scar tissue units them across, to form the obstruction. Predisposing factors are:—

(1) Heredity. In certain families of cattle the lining is more delicate than in others. I have seen obstructions in three successive generations.

(2) Age. The lining epithelium is probably more delicate in a heifer after her first calf than in an older cow.

(3) Narrow lumen of the teat. The narrow lumen of the teat in a heifer predisposes to its occlusion.

(4) Rough milking. Owing to restlessness, heifers are more exposed to rough handling at milking than cows.

In my experience, when a blind teat or teats is found, it is usually a congenital absence of the whole or part of the teat duct. Only in very rare cases is there any likelihood of the operation being a success and it is best not attempted. Where strings are present it is almost useless to operate. Old cows presented for operation are usually suffering from an absence of milk in the quarter rather than from teat obstructions.

Time for Operation.—To have a reasonable chance of success, in the majority of cases the operation should be carried out within ten days after calving. After this time, as a rule, there is not sufficient pressure of milk in the quarter to keep the surgical opening patent.

Operation.—There is no need to describe the operation itself as everyone is already familiar with it, but the following remarks may be helpful.

(*a*) Instruments with crossbars on the handles are far superior to the plain type.

(*b*) The instruments should not only be sterile, and the teat clean and carefully painted with an antiseptic, but it will also be found beneficial if the end of each instrument is plunged into a sterile mild antiseptic ointment before being inserted into the teat. This facilitates the insertion of the instruments and better results follow its use.

(*c*) The less irritation caused at the site of the obstruction, the more probable is a good result. For this reason, if the obstruction is a light one, it is better to use only one instrument (the large one) after the probe has been passed.

After-treatment.—This would appear to be almost as important as the operation itself. It consists of taking only a small quantity of milk at any one time from the teat that has been operated on, but this should be drawn frequently. The quarter should not be more than half emptied for about ten days. The reason for this is that the pressure of milk will keep the operation wound open, whereas if the quarter is milked out, the teat collapses and a recurrence of the condition is likely. Milking should be gentle and on no account should the teat be pulled. The use of a suitable antiseptic ointment smeared on the teat at milking time is to be recommended. The operation is a success in about 80 per cent. of suitable cases. These remarks are based on experience gained by operating on over a thousand cases.

Torsion of the Bovine Uterus

This condition is all too frequent in my district—due, I presume, to its hilly nature. Incomplete torsion is by far the most common form met with.

Until about four years ago I practised rolling of the cow extensively, and cannot honestly say that the results were very successful. Remembering the way the condition arises, that is, that the uterus rolls on its long axis within the cow, it struck me that surely the most rational form of treatment would be to reverse the process, by again rolling the uterus within the cow in the opposite direction to the twist.

Reduction of Incomplete Twist of the Uterus.—By incomplete torsion or twist I refer to those cases where the hand can be introduced into the uterus, and the reduction of such twists is a comparatively simple matter.

The operation should be attempted with the cow in the standing position. Most patients are able to stand, but if not, the cow or heifer should be suspended in the standing position by ropes passed round the hind legs from the flanks to the perineum. Pressure on the abdomen must be avoided and the hindquarters should be higher than the fore. When the cow is able to stand, plenty of bedding should be placed under her hind limbs. A spinal anaesthetic is then administered; using "parsetic," 8 to 10 c.c. will suffice for a heifer and 10 to 12 c.c. for a cow. When anaesthesia is complete, if any portion of the foetus projects into the cervix or vagina it should be repelled. Occasionally, one finds one or more limbs in the cervical canal. When the limb is repelled it should be flexed at the knee or hock so as to maintain it within the body of the uterus. Using the right hand for a twist to the right, and the left for the opposite, the arm is inserted in the uterus and the hand placed, palm upwards, beneath the lowest prominent part of the foetus which can be reached. A side-to-side swinging movement is then started, gently at first, but gradually increasing until the part beneath which the hand is placed can be got to swing completely from left to right. At this juncture a determined push is given in the reverse direction to the twist, and pressure kept up, following through as it were any ground gained. In most cases this one effort will swing the foetus and uterus right round to their normal positions. If this does not occur at least some ground will have been gained, and the swinging movements should now be started again from this position. This method is actually much more simple to carry out than to describe, as the spinal anaesthesia will have completely nullified all resistance. Owing to the effects of the anaesthetic it is better to proceed immediately with delivery of the foetus by traction. The calf in most cases will be alive.

Reduction of Complete Twist of the Uterus.—When the twist is complete and it is found impossible to get the hand into the uterus, rolling might be tried, after first giving a spinal anaesthetic. Using the vaginal wall as a point of resistance, if any success has been attained by rolling, the above method can be brought into play. I consider too much rolling inadvisable and if it does not bring quick results the possibilities of abdominal taxis should be borne in mind.

I have had only three opportunities of carrying out this flank operation, and in all three had little difficulty in reducing the torsion, after getting my hand and arm into the abdomen via the flank. Two cases made a good recovery, the other died.

This method has been described frequently in the literature, and I am sure the experience of most of you is greater than mine.

In all cases where torsion of the uterus has been reduced, a guarded prognosis is advisable, owing to the possibility of a ruptured uterus, or to gangrene of the uterus, following obstruction of the blood vessels involved in the twist.

I was asked to examine a seven-year-old cow for pregnancy on April 15th last. The history was that she was due to calve on March 1st, but showed no evidence of parturition; she was noticed to have colicy pains last February but she showed no "springing" at any time.

It was with the greatest difficulty that the hand was introduced into the vagina owing to occlusion of the passage. Rectal examination revealed a twist of the vagina and what appeared to be another fold of torsion at the junction of the body and right uterine cornu. The latter contained a small mummified foetus.

This accident probably occurred in February when she showed evidence of abdominal pain. As the cow was doing well, the owner was recommended to fatten her.

Pyometra in the Bitch—A Record of Three Cases

(1) An eight-year-old Alsatian bitch.

Symptoms.—Temperature, 102° F.; irregular appetite, loss of condition, dullness, lying in cool places, occasional vomition, tendency to constipation and a vaginal discharge. The enlarged uterus could be palpated easily.

Treatment.—Tonics and potassium iodide were first used in conjunction with vaginal douches, but without success.

"Hypophysin" was then given subcutaneously in doses of 2 c.c. = 20 Vögtlin units every four days. Six injections were given. The bitch was normal in appearance, after two injections. The uterus was normal on palpation after four injections.

This case was treated two years ago, and there has been no recurrence of the condition since.

(2) An old Alsatian bitch.

History and Symptoms.—This bitch was used as a watchdog in a mill yard and was so vicious that only one person could put a collar on her. The first symptom noticed was that she became docile; later she refused food. I had no trouble in examining her when she was muzzled. She was showing all the symptoms of case No. 1, but the vaginal discharge was more profuse, and her abdomen was very distended, giving the appearance of ascites.

Treatment.—Given two intramuscular injections of 3 mgms. each stilboestrol dipropionate with an interval of four days between. Despite this treatment, her condition got steadily worse and difficulty was experienced in walking.

She was then treated with posterior pituitary as in the first case. When she came for the second injection it was noticed that her vicious temperament had returned. Four injections were given as before and the bitch made an uninterrupted recovery, nine months having elapsed since the last treatment.

(3) A four-year-old Greyhound bitch.

History.—This bitch experienced some difficulty at whelping time. About two weeks later she showed a vaginal discharge, started to lose condition, and was not giving the pups sufficient milk.

Treatment.—I was anxious to try stilboestrol in this case, but decided against it owing to its action on the mammary glands. Two injections of posterior pituitary extract ("infundin") were given, with an interval of a fortnight. When the bitch was brought in for the second injection there was no doubt about her improvement.

Stilboestrol Dipropionate and Oestradiol Benzoate

Some results obtained with these substances

There is nothing original in these remarks, being merely a record of some results obtained in the field.

The Sow.—Two hundred sows received intramuscularly 2·5 mgms. of oestradiol benzoate (dimenformen). Of these, in 196 cases oestrus began with monotonous regularity at about the 72nd hour. Two sows showed oestrus within three weeks, which may or may not have been as a result of the injection. Two sows failed to show oestrus. On examination these two animals were found to be hermaphrodites.

Of the sows that showed oestrus those which were mated between 24 and 30 hours after oestrus commenced almost invariably became pregnant. Indifferent results were obtained when sows were mated within 24 hours of the commencement of oestrus.

Ten sows were given 5 mgms. of stilboestrol dipropionate intramuscularly. Eight showed oestrus between 24 and 72 hours. The two others responded to 10 mgms. as a second injection. Of the ten sows, five, mated about 30 hours after commencement of oestrus, became pregnant. I have no history of the other five.

The Cow.—Sixty-four cows and heifers received stilboestrol dipropionate intramuscularly last summer and autumn. The dose varied from 10 to 25 mgms. Sixty showed oestrus at periods varying

from 12 hours to a week after treatment. The four others were heifers and responded to a larger dose after three weeks. In a fair number of cases the oestrus lasted for several days, and in some cases the animals returned to oestrus again in a week or ten days. The cows and heifers served at the first oestrus, with a few exceptions, did not become pregnant. Where service was delayed until a second "heat" appeared, pregnancy followed in most cases. A number of heifers did not return to oestrus a second time and the result was therefore disappointing. It should be noted that manual examination of the ovaries was not carried out prior to, or during, the treatment.

Four cows were given 25 mgms. of stilboestrol dipropionate in an attempt to induce labour but no results followed. Six cows received 25 mgms. for retained foetal membranes. Success was not achieved in any case.

Discussion

Professor A. F. O'Dea, of the Veterinary College of Ireland, opened the discussion as follows: I esteem it an honour to open the discussion on an address by a man possessed of the brilliant academic distinctions and wide experience of Mr. Pierse. To a practitioner so busy as he is, the compilation of these records must have encroached very deeply into the few hours that would normally be devoted to relaxation and rest. But it is an old saying that the man who has most to do finds time for everything.

Papers of this nature dealing with conditions of such interest to the clinician are, unfortunately, all too few. I trust the good example set by the few, who are generally the most hard-working, will, for the benefit of their colleagues, be followed by others and that neither modesty nor a feeling of inferiority will prevent men from recording a list of their difficulties and experiences (whether successful or unsuccessful) when asked to do so by the Honorary Secretary. From such discourses knowledge of practical value is spread. While some might say we shall get this in the literature afterwards, it should be remembered that under present-day conditions you will have to await publication and perhaps miss to-morrow the application of information which you could have obtained to-day—information, too, which you would apply with greater readiness or less hesitancy because it deals with conditions obtaining in this country.

The more successful the veterinary surgeon, the more sought after will be his services and the more highly will the profession be appreciated. So that by proficiency the individual, the profession and the public all benefit. To my mind two or three papers on practical subjects should be presented every year and, when normal times return, I trust this will become an accepted rule of the Association. One has often noticed how much better the attendance is when the matter for discussion is practical rather than academic in character.

The first condition dealt with by Mr. Pierse is named *malignant catarrh*, and if his designation is wrong the essayist is erring in good company. A similar condition described in 1905 by Grunth, of Denmark, as "croup of cattle," and later by Bernt, of Germany, as "rhinitis fibrinosa" was, in the opinion of Professor Bang, closely allied to malignant catarrhal fever. The symptoms described are very like those encountered by Mr. Pierse except that profuse foetid diarrhoea was stated to have been of frequent occurrence. The stage at which this occurred is, however, not mentioned in Hutyra and Marek so that possibly its appearance would have been obviated if yeast had been administered early in treatment. The disease was noted in cows especially soon after calving, sometimes before, occasionally only several months later. Other cattle were rarely affected. Has Mr. Pierse noted an association with parturition? Although abortion is not mentioned, a croupous or haemorrhagic inflammation of the mucous membrane of the vagina and uterus is recorded by Grunth in 27 per cent. of his cases. Nervous and ocular disturbances were absent.

Complications included broncho-pneumonia, inflammation of the genital mucous membrane and diarrhoea.

Grunth distinguishes the condition from malignant catarrh by the absence of keratitis, the more favourable course and its predominance in cows.

I would like to ask Mr. Pierse if he noted any enlargement of the lymphatic glands? This has frequently been recorded by Continental observers in the acute form of malignant catarrh but not in the form under discussion.

With regard to treatment, yeast in doses of ½ to ¼ lb. per day has been known for some years to give a certain measure of success in the treatment of malignant catarrh. This substance is rich in the vitamin B factors and in protein. Bovines, however, are said to synthesise all the vitamin B they require through the agency of organisms in the paunch so that the administration of these factors would appear to be unnecessary. How, then, does yeast act? A possible explanation is that the proliferation and activity of these organisms is inhibited by some substance present in the rumen. Another condition I have found to respond to a course of yeast therapy is a persistent laxity of the bowels sometimes noted in cows and bulls unassociated with parasitism or other evidence of disease.

Mr. Pierse is very wise to have recourse to the microscope in suspected *helminthiasis*. The ideal method of diagnosis is a combination of clinical and microscopic examination carried out by the same person. It is surprising, especially in the case of horses, how often we find only slight clinical symptoms accompanying a high egg count and, on the other hand, pronounced clinical symptoms with a comparatively low count, although both respond to anthelmintic treatment. A low egg count in the presence of clinical symptoms may be due to the character of the faeces or to the fact that the sample taken was accidentally comparatively poor in eggs.

I cannot agree with Mr. Pierse that the faeces in parasitic gastro-enteritis are whitish or yellow in colour. In most of the cases of uncomplicated parasitic gastro-enteritis of cattle that I have seen at pasture the faeces were persistently green and bubbly. This is a further argument in support of microscopic examination for differential purposes.

When the essayist finds both fluke and strongyle ova present in one sample, which condition does he treat first? Has he ever tried treating both together by giving copper sulphate solution, followed immediately by carbon tetrachloride suspended in milk, and, if so, with what result?

Another question in this regard. As a tendency to acalcaemia is believed to render the liver more vulnerable to the effect of carbon tetrachloride, would he consider it advisable to administer calcium orally or parenterally a short time before in cases where a large dose of carbon tetrachloride is indicated?

In the treatment of coccidiosis, I presume Mr. Pierse keeps his patients housed for some weeks besides giving them medical treatment.

Referring to *piroplasmosis*, when M & B 736 was first introduced Mr. Bryan Magee tried it on some cases of redwater for me. The conclusion that we came to was that 2 grammes (20 c.c. of the solution as then prepared) was effective in mild cases but that in severe cases a larger dose was necessary and that it was probably not as efficient at this dosage as "pirevan." I see that phenamidine, a solution of 4 grammes in 10 c.c., is now on the market, and in doses of 7 to 10 c.c. one would expect this to cure the most acute cases if given in time.

We have found "pirevan" effective and safe and any veterinary surgeon whom we have consulted appears to be quite satisfied as to its efficacy. Our experience of it, however, is limited to 13 cases treated by Mr. T. F. Connolly last year, all of which made uneventful recoveries. I mention this because the latter drug has been available to the public and I consider it imperative that any drug used in the treatment of disease by a professional man should be at least as reliable and safe as that used by the empiric.

On the value of other agents, apart from "acapron," I have no information to offer, but "acapron" may, unless its use is accompanied by an analeptic such as rephrin, produce an alarming reaction.

In connection with obstinate constipation, which frequently follows redwater, I would like to know the essayist's treatment for this complication. A very capable practitioner informs me that he finds one large dose of powdered nux vomica sufficient. If a purgative had already been given, then nux vomica alone is prescribed.

In regard to *actinomycosis and actinobacillosis*, it is well that members should know that the intravenous injection of sodium iodide does not invariably effect a cure. In a limited experience of its use I had one failure in a yearling heifer where the lesion involved the entrance to the larynx and the epiglottis. All the other cases responded well, though a second injection 10 or 12 days later was necessary on a few occasions.

Where the disease is refractory to treatment it would be interesting to try the effect of neosalvarsan (novarsenobillon: neoarsphenamine: neokharsivan) which is used in the treatment of actinomycosis in the human subject. The dose recommended for cattle is 0·9 to 2·3 grammes intravenously, diluted 1 in 16 with freshly distilled water and repeated at intervals of a few days. Considering that human beings may get up to 0·9 gramme, the dose does not appear excessive.

In treating "timber tongue," I find that scarification of the lesions promotes recovery. Mr. Pierse's dosage, 1 drachm daily of potassium iodide, seems to me rather small.

Referring to *stricture of teat*, I agree with Mr. Pierse regarding the causation of this condition. In my experience the use of Hudson's instruments is often not successful in large herds where the owner depends on hired labour because the quarter is not stripped sufficiently often following operation and the insertion of bougies does not compensate for this requirement. Where, however, the farmer and his family do the work the results are satisfactory if the operation is carried out in time.

Torsion of the uterus has been the subject of many letters in the journals of late. I congratulate the reader on his enterprise and resourcefulness in correcting the displacement.

Our experience in the College of the value of posterior pituitary extract for the treatment of *pyometra in the bitch* has been consistently favourable except where there has been profound debility from toxaemia or septicaemia.

Stilboestrol dipropionate is contra-indicated in the bitch. It causes hyperaemia of the uterus which, in pyometra, may be followed by septicaemia; it frequently has a depressing effect on this animal and its use for the purpose of inducing heat may be followed by repeatedly recurring oestrus. Stilboestrol is a synthetic compound which is very effective in inducing oestrus in the cow and sow and has pronounced ecbolic effects on the gravid uterus. Its administration to the latter animals by intramuscular injection is usually followed by oestrus within 72 hours. Given intravenously, it is eliminated rapidly and may have to be repeated. Professor Nicholson, from whom a good deal of my information on sex hormones has been gleaned, informs me that it has no effect on the mare. Consequently, in order to stimulate the sexual cycle in the mare or bitch one uses anterior pituitary extract ("prolan," "gestyl," "antuitrin," etc.).

Oestradiol benzoate (oestrone), one of the first hormones to be isolated from the ovary, is similar in its effects on the cow and sow to stilboestrol, but is much dearer than the latter.

In conclusion, I offer Mr. Pierse my best thanks for his very able address.

The Reply

Mr. Pierse: My thanks are due to Professor O'Dea for opening the discussion and also to Professor Byrne, Dr. Lamont, Messrs. Murphy, Donnelly, Condon, Lambert, Harnett, Whitty, Collins, Sleith, Daly, Crowe, Joyce and Nagle; firstly, for their kind remarks on my paper, and secondly for the great discussion to which they contributed.

As time is running late, I will deal with Professor O'Dea's remarks separately, and then with the others collectively under the various headings.

In reply to Professor O'Dea: I have never observed enlargements of the lymphatic glands in my cases of "malignant catarrh." These cases had no association with parturition and a number of the subjects were virgin heifers.

If an animal is suffering from fluke and parasitic gastritis at the same time, it is first dosed for the condition which seems heaviest from the microscopical examination of the faeces, and then dosed for the other condition a week afterwards.

Obstinate constipation in the redwater cases is treated with treacle and salt in a large volume of water, given per tube, together with copious enemata administered at the same time. The best way to give the latter is by gravity with a small bore stomach tube. Clearing out the rectum with the hand a couple of times a day, if constipation seems imminent, is a very useful preventive of the condition.

With regard to the dosage of pot. iodi., 1 drachm doses are given three times a day, for four days, and then once a day. This dose seems large enough to effect a cure within a reasonable time and it is economic. No matter how large the dose, the lesions take a certain time to clear up and, if large doses are being used, a certain amount of the drug is being eliminated from the system without having any useful effect. I agree that scarification of the tongue and painting with iodine hastens repair. I have not tried neosalvarsan in resistant cases because, unless rapid results were assured, it would not be economic. Theoretically, at any rate, the use of calcium for a few days before treating with carbon tetrachloride would be worth a trial.

I would not agree with the general statement that stilboestrol is contra-indicated in the bitch. It may be so in cases of pyometra, in which cases I consider it of doubtful value. Since writing this paper I have learned that some of the bitches referred to therein actually have had large litters of whelps.

In reply to the other gentlemen:

The apparent discrepancy in numbers of ova found on microscopical examination by the method described and by Mr. Sleith's method would be due, I feel sure, to the absence of special solutions on my part and to the fact that only smears of the deposit are examined on plain slides, without the use of cover glasses. I agree with this speaker that the incidence of fluke or parasitic gastritis varies considerably with different districts. Another point worth mentioning is the difficulty often experienced during the month of June in finding fluke ova in the faeces of animals known to be infested. I have proved this on numerous occasions on *post-mortem* examination. Salt licks are a great benefit in cases of "pining" and even normal cows improve their milk yield when these are used. It is difficult to obtain them at present.

In cases where scour persists after phenothiazine has dealt efficiently with the parasites, trace elements in conjunction with intestinal astringents are indicated. These cases benefit by a second dose of phenothiazine given 14 days after the first dose. It is well to change the grazing for cattle after dosing them with this drug.

Undoubtedly, deaths will occur with the use of carbon tetrachloride, but its use is justified, under present circumstances, by the number of cases where good results are obtained with it, without any display of toxic symptoms.

Piroplasmosis.—It is interesting to learn that others also got fatal results when using some of the products used for this condition. Undoubtedly any exertion is harmful in cases of redwater. Extract hamamelidis liquidum seems to have a specific effect in any condition where blood or haemoglobin appears in the urine and is useful in old redwater cases and in cases of chronic cystic haematuria. For this latter disease, however, a mixture of liq. ferri perchlor. and ol. tereb. seems more effective.

Hudson's Operation.—This seemed to be the favourite topic of the evening, judging by the number of speakers who referred to it. I could not agree that cross-bars on the instruments are in any way dangerous, even if a cow kicks. If the cow's hind legs are secured in a proper manner when she attempts to kick the offending leg goes backwards and not towards the operator. Another advantage of the cross-bar is the fact that it makes the instrument more easy to find should it fall on the bedding. A certain amount of force has to be used in this operation in all its stages and this force can be gauged better, and be applied more quickly and decisively, when the instruments have crossbars. The fewer times the instruments are passed through the obstruction to free it properly, the better. Too much manipulation causes irritation and subsequent inflammation of the site. Blood appearing after the operation is cause for a bad prognosis; the sphincter of the teat getting ruptured, however, need give no cause for alarm. Teat bougies are of doubtful value and have many disadvantages. If left with the owner, they may possibly be reintroduced even after a sojourn on the bedding. The best bougie is a full quarter, the pressure of milk causing dilatation of the teat duct. The knife referred to by Mr. Harnett has a short blade and in some cases cannot reach obstructions; it is difficult to avoid incision of the sphincter when using it.

When the operation is a failure, it is rarely worth while operating again that year but the teat can usually be successfully operated on after the next calving. The operation is never followed by mastitis, if ordinary precautions are taken.

Where more than two teats are obstructed, I always advise against the operation because experience has shown that success is not likely to be the result.

It is not likely that cow pox is in any way directly responsible for this condition beyond that it makes the animals resent milking and in this way their teats are more liable to injury.

Pyometra in the Bitch.—This condition is almost invariably seen in elderly bitches, which have never been bred from. It is first noticed shortly after the bitch has shown oestrus. The third case I reported on could hardly be classified as true pyometra. I never met with abscess formation after "infundin" and could not suggest any reason for it.

In those cases where stilboestrol failed to induce labour, I have manually dilated the os after spinal anaesthesia. This operation is usually not too difficult in the cow, but occasionally a good deal of trouble will be encountered. This manipulation will be found more easy to carry out in the mare where, however, it is less frequently practised.

CLINICAL COMMUNICATION

Dermoids in the Eyes of a Bullock

F. J. KINGHORN, M.R.C.V.S.,
Glasgow

Subject.—A two-year-old black-polled Irish bullock recently landed at Glasgow.

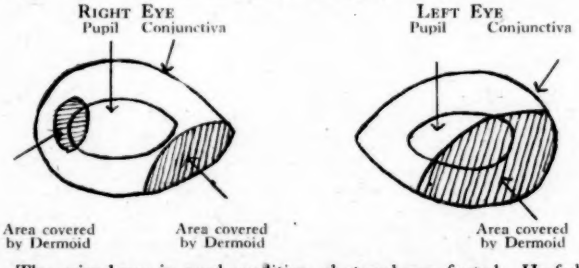
During the inspection, it was noticed that this animal presented a peculiar appearance about the eyes. He was caught and tied up and a careful examination of the eyes revealed the following facts.

Right Eye.—There was a fair-sized dermoid, arising from the conjunctiva of the inner and lower aspect of the eye, which was in part attached to the nictitating membrane. It was covered with a luxuriant growth of long black hair and was dependant from the eye in such a manner that when the lids were closed it was completely outside them. A second and smaller dermoid arose from the upper and outer aspect of the cornea and spread across a small portion of the pupil. It, too, was covered with long black hair. It was partly hidden by the lashes of the upper eyelid.

Vision was apparently not affected. There was a strong reaction to light.

Left Eye.—A large dermoid, covered with long black hair, arose from the lateral aspect of the cornea, extending across the eye to the outer canthus and into the conjunctiva. The growth obscured a large portion of the pupil itself.

There was a well-marked corneal opacity of apparently long standing, due no doubt to the constant irritation set up by the hair on the dermoid. There was no reflex to light and as far as could be ascertained, vision was completely lacking in this eye.



The animal was in good condition, alert and sure footed. He fed normally and was able to find his way about the pen without difficulty.

ABSTRACTS

[The Lethal Dose of Lead for the Cow: The Elimination of Injected Lead through the Milk. White, W. B., Clifford, P. A., and Calvery, H. O. (1943.) *J. Amer. vet. med. Ass.* **102**. 292.]

It is generally recognised that bovines are very susceptible to lead poisoning, but the smallest amount of lead required to kill one of this species is not definitely known; the following case of accidental poisoning of cattle, however, indicates that the amount is small. On one day only, a herd of cows were by accident given foodstuff contaminated with red lead, the amount of lead each cow received being later estimated to be 1·65 grammes, or about 4·8 mg. per kilo body weight. One cow died four days later, and within eleven days 17 more had died, with typical symptoms of acute lead poisoning. Two cows, which subsequently recovered, were found, twelve days after having ingested the lead, to be excreting lead in their milk at levels (2·26 parts and 0·15 parts per million respectively) that would make the milk unfit for human consumption. Four months later the milk of these survivors did not contain a quantity of lead different from that of cows on a normal diet (about 0·030 parts per million).

E. C.

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[Infection of Laboratory Animals with *Mycobacterium johnei.* Francis, J. (1943.) *J. comp. Path.* **53**. 140-150. (4 Photomicrographs.).]

The amount of experimental work on the pathogenicity of *M. johnei* has been hampered partly owing to the inability of workers consistently to establish infection in laboratory animals successfully and partly to the little use to which young laboratory animals have been put. In view of the accumulated evidence that even naturally susceptible animals develop an apparent immunity very early in life, J. F. investigated the problem of artificial infection of laboratory animals using young mice (13–14 days), hamsters (23 days), guinea-pigs (2 days) and rabbits (10 days). His inoculations consisted of the moist growth of *M. johnei* after 40 days' growth at 37° C. on Dunkin's egg medium (without gentian violet) and all were inoculated intraperitoneally.

Mice.—A progressive infection commencing in the liver and spleen and later involving almost the entire length of the intestinal wall was established in 9 to 34 weeks in 100 per cent. cases (four mice) using 5 mg. of the inoculum. This infection was successfully transmitted to other mice by direct serial passage and developed more rapidly in them than in those inoculated with the original culture. Indirect passage, using 1·4 mg. of a culture from the spleen of an infected mouse, was less consistent, 50 per cent. (three out of six) mice becoming rapidly and heavily infected.

Hamsters.—Even allowing for the much smaller infective dose (three times) the results were less consistent although where infection was established one serial passage was successful.

Rabbits and Guinea-pigs were less susceptible to infection by this method than mice or hamsters.

The histology of infection so set up conformed with that in naturally-occurring Johne's disease.

W. T. R.

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[Normotension and Hypertension in the Dog. Wakerlin, G. E. (1943.) *J. Amer. vet. med. Ass.* **102**. 346.]

The direct (arterial puncture) and indirect (ausculatory) methods of determining blood pressure were used on several hundred dogs. The femoral artery blood pressure of normal resting dogs was found by the direct method to average 120 mm. Hg., with a range of 90 to 150 mm., most values lying between 110 and 140 mm. The indirect ausculatory method showed that in the brachial artery the average systolic pressure was 140 mm. Hg. (range 100 to 180 mm.), and the average diastolic pressure 90 mm. (range 60 to 120 mm.). The collection of further data is needed, with reference to the factors causing normal variation. The author speculates that hypertension occurs spontaneously in the dog, and has found one of 200 dogs examined to have a mean femoral artery pressure of 150 to 180 mm. Hg. Hypertension can be produced experimentally in the dog, and a method of treatment with an extract of pig's kidney has been tried in such cases with good results. It is suggested that further cases of spontaneous hypertension in the dog should be looked for, so that this treatment can be applied to them, with a view to its use ultimately in cases of hypertension in man.

E. C.

Serious losses of livestock from anthrax have been reported from the Thrapston, Northants, area. Mr. J. R. Bream, of Woodford Grange, lost six down-calvers and other animals. The trouble appears to have originated in riverside meadows.

REVIEW

[Glory Hill Farm (2nd Year) by Clifton Reynolds; Messrs. John Lane, The Bodley Head, Bury Street. London, W.C.1. Price 7s. 6d.]

The majority of those who read the author's first volume—which was a best seller—will be anxious to learn how the enthusiastic amateur entering farming from industry fared in his second year. They will not be surprised to find that the somewhat roseate outlook of the beginner is becoming rather chastened, with a deepening respect for reality and a growing spirit of humility.

Mr. Reynolds is lucky in that he appears to have a capable, equably poised wife—a great asset to a farmer—and an experienced farm manager in "Charlie." Between them, and his growing desire to learn from others, he is undoubtedly making a success of his venture.

As so often happens, however, his humility in connection with the animals is less in evidence. It certainly appears as if he does not know how to benefit from the advice of his veterinary surgeon, in that he merely sums up his veterinary experiences by some such remark as "The vet. said 'I can do a *post-mortem* if you like' and added the galling obvious 'but it won't bring her back'." From one who obviously realises the value of full co-operation one would expect a greater appreciation of the value to be gained from veterinary advice and service. We anticipate the author will show development in this field in his third volume.

Mr. Reynolds has a refreshing and engaging style and we feel sure his second volume will be read by many members of the profession with the greatest interest.

QUESTIONS IN PARLIAMENT

Government Policy (White Papers)

Mr. Boothby asked the Prime Minister whether he will give directions for the issue of White Papers setting out the policy of His Majesty's Government with regard to agriculture, land purchase and development and the Beveridge Report, respectively?

The Prime Minister: No, Sir. His Majesty's Government's proposed policy in these and other matters will be laid before the House in due time and in the usual way.

Mr. Boothby: Can the Prime Minister hold out any hope that we may be informed of the policy of the Government on at any rate one of these important topics before the Christmas Recess?

The Prime Minister: I have nothing to add to the statement I have made.

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Pit Ponies

Sir R. Gower asked the Minister of Fuel and Power whether he has any information as to the cause of the fire that broke out at the Princess Royal Colliery, Bream, Gloucestershire, on September 13th, whether all the men employed below ground were withdrawn; whether four ponies which were not withdrawn at the time of the outbreak were found to be dead or missing when the mine was later visited by His Majesty's Inspector of Mines; and why the ponies were not withdrawn with the men?

Major Lloyd George: The fire was started by a short circuit in an electric cable. All the workmen were safely withdrawn except one, who was overcome by smoke and fumes. There were four ponies which could not be withdrawn in the short time available because the roadway by which they usually travelled was fouled by smoke and fumes and the alternative road by which the men had to escape was obstructed by tubs. To have withdrawn the ponies would have endangered the lives of the men.

Sir R. Gower asked the Minister of Fuel and Power whether he is making a special effort to obtain adequate supplies of horses and ponies for use below ground in mines; whether adequate reserves of ponies are being maintained for use in cases of emergency or sickness among the animals; and whether, in each mine employing more than 50 ponies, a 10 per cent. reserve number of ponies is regarded as sufficient?

Major Lloyd George: There is no shortage of pit ponies so far as I am aware. No requests for assistance in obtaining ponies have been received in my Department. Most collieries have some ponies in reserve. The number depends upon the number they require for normal work and their arrangements for obtaining and training additional animals when needed, and I should not like to lay down any fixed proportion as a standard for general adoption.

Restocking Occupied Countries

In the House of Lords on Wednesday of last week, the Earl of Mansfield asked whether the Government were in consultation with the Governments of the allied countries now in enemy occupation, not only regarding the amount of livestock likely to be needed by each, but also the various breeds considered most suitable, and the countries from which they could be best obtained; and whether they were also consulting the agricultural organisations of this country with the view to securing the timely co-operation of our own farmers in this object. The noble lord, who also moved for papers, said that the Germans had ruthlessly devastated all Europe of whatever might be made of use to themselves, including livestock from the agricultural countries. When the war was over we should have to face the position of countries of virtual emptiness so far as livestock was concerned. Unless some pronouncement on agricultural policy was forthcoming soon production at home for all purposes was going to be imperilled.

Lord Templemore, Captain, Yeomen of the Guard, said that the inter-allied committee set up in September, 1941, to consider the post-war needs of the liberated countries of Europe was engaged in assessing the present condition of agriculture in the occupied allied countries, and the imports of seeds, implements, and other materials which would be necessary to restore food production and rehabilitate the agricultural industry. In addition, a sub-committee had been considering, with the help of British experts, the position of livestock in occupied Europe and the measures of restoration which it would be possible to take at an early stage. The losses in livestock resulting from enemy occupation had not been uniform in all countries, but in the aggregate they represented a decline running into millions of heads of draught animals and dairy cattle. The decline in pigs and poultry had been even more severe. The losses already sustained in cattle would probably take at least six or seven years to make good, and the loss of horses an even longer period. It was anticipated that further heavy losses would be incurred before allied countries were liberated. While the restoration of these losses might be made good mainly through the natural increase of the remaining herds, there would be scope for the import of good class breeding stock and of commercial cattle and horses if transport could be provided. The sub-committee had issued a secret report estimating the numbers of livestock likely to be required and the countries where they could be best obtained. The Ministry of Agriculture was considering the whole problem of the provision of livestock from this country and had had preliminary discussions with the livestock export group. These would be resumed in due course. The time was not yet ripe for a final decision upon the breeds and types of livestock to be supplied to Europe from this country.

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In the Northern Ireland House of Commons the Minister of Agriculture has asserted that the British Government will make a broad general statement of policy regarding post-war agriculture in the near future.

Weekly Wisdom

What is in my mind is this. A young barrister knows that, as such, he is the same sort of person as the Lord Chief Justice, just as a poodle knows that he is the same sort of animal as a Great Dane. Does the elementary schoolmaster feel that, as such, he is the same sort of person as the Dean of Christ Church? If he does, then he has, so to speak, liberalised his profession. And if he has been properly educated at his university (I do not say taught, and I do not say trained), educated by the conversation of his own kind and the unobtruded guidance of those who have passed that way before him, I see no reason why he should not. But what is true of him should also be true of his more technological companions and then the invisible virtue really would begin to shoot.—G. M. Young: "Provincial Universities: What's Wrong?"—*Sunday Times.*

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Dr. Arthur W. Miller, Assistant Chief of the Bureau of Animal Industry, Washington, D.C., has been appointed Chief in succession to Dr. John R. Mohler, whose retirement was recently announced in these columns. Doctor Mohler has been with the Bureau more than 46 years—over three-quarters of the period of existence of that organisation. In an appreciation of his work appearing in the current issue of *Veterinary Medicine*, Mr. Claude R. Wickard, Secretary of the U.S. Department of Agriculture, states that during that 60 years the United States has risen from the rear ranks to a position of world leadership in livestock and veterinary research, and Dr. Mohler has been closely identified with much of that progress.

NOTES AND NEWS

The Editor will be glad to receive items of professional interest for inclusion in these columns.

Diary of Events

Oct. 27th.—Meeting of the North of England Division, N.V.M.A., at Newcastle-upon-Tyne, 2.30 p.m.

Nov. 3rd.—Meeting of the Editorial Committee, N.V.M.A., at 36, Gordon Square, W.C.1, 2.30 p.m.

Nov. 4th.—Meeting of the Central Veterinary Society, at the Conway Hall, W.C.1, 2 p.m.

Nov. 5th.—Meeting of the Sussex Division, N.V.M.A., at Brighton. Informal luncheon 1 p.m.; business meeting 2.30 p.m.

Nov. 6th.—Second Annual General Meeting of the Society of Women Veterinary Surgeons.

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N.V.M.A. Annual Meeting and Conference

Our next issue will contain a complete report of the momentous annual meeting of the Association held on September 29th and 30th, together with the President's address, a biography of the in-coming President (Major Hancock) and a full account of the annual luncheon. A further feature will be the first of the papers presented to the Association conference, that by Major J. M. Smith on "The veterinary surgeon in the development of the Colonies," and the discussion, opened by Professor W. Kearney and Mr. John Smith. The second paper, "The improvement of livestock," by Professor Robert Rae, together with a report of the discussion opened by Colonel E. M. Curley, Dr. Tj Bakker and Mr. S. L. Hignett, will be published in the succeeding issue.

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PERSONAL

Capt. A. W. Peyton, R.A.V.C.

We learn with much regret that Capt. A. W. Peyton, R.A.V.C., has been missing since March 30th, 1943, from Brigadier Wingate's Expedition into Burma. Any information will be gratefully received by Mrs. Peyton, "Burlings," Pondfield Road, Hayes, Kent.

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Veterinarian Mayor's Record at Exeter

Year by year our West Country colleagues have informed us, with a proper local pride in the achievements of their many "worthies," of the recurrent return to the Mayoral Chair of Mr. R. Glave Saunders, M.R.C.V.S., of Exeter. It was no surprise to us to learn, therefore, that his consent to nomination for the sixth consecutive year creates a record in the city Mayoralty. The only other Mayor to serve for five years in succession was the late Sir James Owen, whose period of office covered the last war.

In addition to his Mayoral duties, Mr. Glave Saunders has shouldered the responsibility of the chairmanship of the War Emergency Committee, and it was generally anticipated that he would continue in office for a further period. He has also identified himself closely with the many aspects of public life, and has had the wholehearted support of Mrs. Glave Saunders, whose depot has been a feature of the city's war-time activities.

Mr. Glave Saunders, who has achieved more than local fame as a worker in the cause of the humane treatment of animals, is President of the Western Counties Division which meets in the city's glorious old Guildhall—a possession now sadly envied by Plymouth since the loss of her rival masterpiece.

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Appointment.—The appointment in the Colonial Veterinary Service is announced of Mr. A. R. Ayliffe, M.R.C.V.S., as Veterinary Officer, Tanganyika Territory.

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Marriage.—Franklin—Bryce.—At Hamstead Road Church, Birmingham, on October 9th, 1943, Richard Douglas Franklin, M.R.C.V.S., only son of Mr. H. R. Franklin, of Bacons End Farm Coleshill, to Margaret Rosalie Bryce, M.R.C.V.S., only daughter of Dr. and Mrs. W. A. Bryce, of Birmingham.

Mr. G. S. Muir, B.V.Sc., M.R.C.V.S., formerly of Needham Market, has now taken up residence at Eden House, Bury Road, Stowmarket.

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R.C.V.S. OBITUARY

Nye, Sidney Herbert, "Erin," The Avenue, Loughton Essex. Graduated London, May 10th, 1893; Fellowship May 16th, 1903. Died suddenly at his home, October 14th, 1943; aged 73 years.

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GENERAL OBITUARY

Captain George Deakin

The agricultural community, and in particular the National Farmers' Union, has sustained a severe loss in the death of Captain George Deakin, M.C., Vice-President of that organisation, which took place on Saturday of last week as the result of injuries received in an accident at cross-roads near Tarporley, Cheshire.

He had been a member of the N.F.U. Council since 1931, Chairman of Pershore branch since 1925, and Chairman of N.F.U. Headquarters Labour Committee since 1936. He took an active part in the work of the Agricultural Wages Board as the leader of the farmers' representatives. He was Assistant Director of Pig Supplies at the Ministry of Food from September, 1939, to June, 1940; Chairman of the Pigs Marketing Board in 1940, and was Adviser on Pig Supplies to the Ministry of Food.

Captain Deakin was also a member of the Permanent Agricultural Committee of the International Labour Office, and attended the Geneva meeting in 1937.

A contributor writes in last week's issue of *The Farmer and Stock-Breeder*: "The death of Captain Deakin cuts off a man who was old enough to have acquired the balance and discretion of middle age while still retaining the fire and tenacity of youth. It comes as a shock to realise that he has died just as he was about to exercise his talents in the most important job to which agriculture could call him."

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ROYAL ARMY VETERINARY CORPS

The following announcements are made in the issue of *The London Gazette* dated October 12th, 1943:—

To be Lieuts.: Hubert Martin John (287708) August 16th, 1943; Hector Henderson Hoventon Sutherland Mackenzie (291256), August 17th, 1943; Robert Hunnam (291324), Malcolm MacEwen Mackinnon (291327), August 18th, 1943; David Walton Owen (291656), August 23rd, 1943; Frederick Hugh McMillen (291692), September 1st, 1943; John Alexander Cameron (291904), John McIntyre Ferchard Leitch (291810), Gordon Keith Maclachlan (291811), September 3rd, 1943; Alexander Taylor (291856), September 6th, 1943; Cedric Norman Saunders (291855), September 7th, 1943.

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INDUCTION OF LACTATION BY THE INJECTION OF STILBOESTROL

The following announcement is made jointly by the Ministry of Agriculture and the Department of Agriculture for Scotland:—

During the last two years experiments on the use of stilboestrol as a means of inducing lactation in barren heifers and cows have been carried out under the co-ordination of the Agricultural Research Council. The method consists in implanting a number of tablets of stilboestrol under the skin and their removal at a later date. The results of these experiments indicate that about 50 per cent. of the treated barren heifers have produced an economic quantity of milk. The other treated animals either failed entirely to respond to the treatment or produced only small quantities of milk. About half the treated animals were later successfully bred from.

It would appear that this treatment may have a useful, though limited, practical application in bringing into milk valuable dairy heifers which have failed to get in calf and which, for this reason, may be fattened and slaughtered. Following a lactation induced in this way, a proportion of such heifers may be got into calf, and so saved for the dairy herd.

A serious drawback to the method in its present form is the occurrence of symptoms of continuous bulling in a proportion of the treated animals. The degree to which they are affected varies considerably with the individual; fractures of the hip or pelvis have been recorded, due to the continual jumping of one heifer by another.

Research work is now in progress in the hope of overcoming this disadvantage and modifications of the method are being studied. In the meantime the Agricultural Improvement Councils have made arrangements for wider trials throughout the country. As it is essential to retain adequate control over these trials at the present stage arrangements have been made for the treatment of selected animals only, under the supervision of the Veterinary Sterility Officers of the Ministry of Agriculture.
October 12th, 1943.

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FOUNDATION STOCK FOR SMALL FARMERS IN KENYA

Details of a scheme to supply small farmers in Kenya with a good type of Boran Heifer as a foundation stock have been given by Mr. R. Daubney, the Director of Veterinary Services and Live-stock Controller. The scheme is aimed at increasing agricultural production after the war by the introduction of a certain number of Boran Heifers into the settled areas, the Boran being perhaps the best breed as a foundation stock for dairy herds. It is proposed to issue the animals in batches of 20 or 25, particularly to small farmers and those most in need of foundation stock.—*African World.*

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VETERINARIANS IN SOVIET RECONSTRUCTION

In the course of a note outlining the provisions of the recent decree of the Soviet Government for the rehabilitation of liberated districts, *The New Statesman and Nation* observes: "Beginning with an estimate of the losses and requirements of these areas, the plan intends to reverse the great evacuation that took place in the summer and autumn of 1941. Soon thousands of farmers will be returning, either with their own cattle or with new stock, from the place of refuge in central or eastern parts of the Soviet Union. To assist in their resettlement, many new veterinary assistants and agronomists are being rushed through special short courses; large supplies of new agricultural machinery and instructional literature are being provided, and farmers are to be released from this year's compulsory deliveries to the State. Although communications are to be restored as rapidly as possible, considerable emphasis is placed on the necessity of using local resources and the reorganisation of local industries."

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It is stated that the King is forming a new herd of dairy Shorthorns at Bagshot Park, Surrey, formerly the residence of the late Duke of Connaught. The initial purchase for the herd is of seven cows from Winslow, Buckinghamshire. His Majesty will continue to breed Scottish type Shorthorns (for beef) at Windsor.

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Foot-and-mouth disease, presumably spread by hay imported from the Ukraine, is raging round Riga.—*Vet. Med.* (Sept.).

CORRESPONDENCE

Letters to the Editor should reach the Office not later than by the first post on Monday morning for insertion in following Saturday's issue.
The views expressed in letters addressed to the Editor represent the personal views of the writer only and must not be taken as expressing the opinion or having received the approval of the N.V.M.A.

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WILLIAM HUNTING

Sir,—In his article anent William Hunting, which appeared in your issue of September 18th, Mr. John Francis referred to the uncertainty of the date of Hunting's birth.

Mr. Francis tells us that the London County Council records give the date as May 20th, 1846, and Henry Gray states that Hunting was five years old in 1851. The date given on the tombstone, however, is May, 1843. (Incidentally, he was interred in the cemetery at Putney Vale.)

The tombstone date appears—at the first blush—to be the more likely because, if he were born in 1846, then he was only 18 when he qualified in April, 1865. This would mean, too, that he was only 19 when he was appointed to the Professorship at Cirencester and only 22 when he joined Gamgee as Professor of Anatomy in London.

Since Hunting was an old Edinburgh Academy boy I enquired whether there existed any entry in the School Records that might shed some light on the matter, and the Rector, Mr. A. L. F. Smith, has kindly sent me the following:—

Extract from Edinburgh Academy Register

Hunting William, 1859-61. Classes 3, 4. b. 20 May, 1846; son of Charles Hunting, South Hetton, Fencehouses, Durham.

From this it is clear that he was a pupil for two years at the school which he left at the age of 15. The birth date seems to be conclusive since it is precisely that given to the London County Council under whom he accepted permanent office in 1907—48 years after he entered the school.

Queerly enough there seems to be no record in the veterinary journals of the actual date of Hunting's death. From indications which appear at p. 243 of *The Veterinary Record*, 1913, it can be assumed to be October 24th, 1913. This is confirmed by the *Edinburgh Academy Chronical* which I have just now had an opportunity to consult.

To any one of us who concerns himself in the subject of veterinary history, with particular regard to its bearing upon veterinary tradition in the future, exact knowledge relative to the main dates in the life of so great a figure in our science is, of course, a matter of importance.

I met Hunting on only two occasions. At each I was impressed with the power of his intellect with the transparent wholesomeness of his personality and with, more than all else, the real nobility which, to my receptive youth, seemed to glow out from the very soul of the man.

J. Russell Greig.

Animal Diseases Research Association,
Moredun Institute,
Gilmerton, Midlothian.
October 9th, 1943.

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Mr. F. B. Edwards, M.R.C.V.S., writes to point out that an error appeared in the article entitled "Plant Problems in Relation to Diseases of Livestock" by Charles Wright, M.A., which was published in *The Veterinary Record* for September 25th. "The specific name for hemlock is given as Oenanthe crocata. This is water dropwort, Conium maculatum being the correct designation for hemlock. Kwvelov is the Greek name for that plant which the Athenians used to poison their criminals and inconvenient philosophers, such as Socrates. Maculatum describes the spotted nature of the stem.

"The name Oenanthe for water dropwort is derived from the Greek words for wine (οἶνος) and flower (ἄνθος) apparently on account of the odour."

DISEASES OF ANIMALS ACTS, 1894 TO 1937, AND AGRICULTURE ACT, 1937 (PART IV).

Summary of Returns of Confirmed Outbreaks of Scheduled (Notifiable) Diseases

Period	Anthrax	Foot-and-mouth	Parasitic Mange*	Sheep Scab	Swine Fever
Sept. 16th to 30th, 1943 ...	11	—	—	2	19
Corresponding period in—					
1942 ...	16	57	—	1	21
1941 ...	11	—	—	1	29
1940 ...	30	4	—	—	370
Total Jan. 1st to Sept. 30, 1943	218	15	6	115	401
Corresponding period in—					
1942 ...	252	502	26	131	350
1941 ...	331	258	15	151	967
1940 ...	410	28	15	129	3,636

Note.—The figures for the current year are approximate only.
*** Excluding outbreaks in Army Horses.**

Tuberculosis (Attested Herds) Schemes

The number of Attested Herds, *i.e.*, herds officially certified as free from Tuberculosis as at September 30th, 1943, was as follows:—

England	Wales	Scotland	Total (Great Britain)
3,948	8,712	3,486	16,146